



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D206-642-341BL
Job Sheet 166605



Part No: D206-642-341BL

Job Qty: 1 ea

Part Name: Replacement Skidtube (Fits LH or RH)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 10/12/17

Job Tracking No:

Due Date: 10/27/17

Created By: Mario Poulin

Type: Stock

Description:

Note: DWG REV F(DEO) IPP Rev: H 05.10.11 Added D3429-1 per CHG004 KJ/CP/JLM IPP Rev: I 08-09-29 revF as per dwg DD verified by: EC Est Rev: J 09-03-02 as per DSI9440 rev.a DD verified by: EC IPP rev K 10.08.03 chg ms27039-1-08 for "C" type EC verf: DD IPP Rev: L 12.11.22 now swage per ecn12-679 DD verf: JLM IPP Rev: M 14.04.25 ECN14-520 DD verf: JLM IPP REV: N 15.10.09 ADDED BL DD VERF: JLM IPP REV: O 16.01.22 PAR16-484 DD VERF: JLM

Ship Via:

Bill of Materials

Part/Part Name	Part Note	Serial No	Quantity	Location
D206-642-341BL Replacement Skidtube (Fits LH or RH)	DWG REV F(DEO) IPP Rev: H 05.10.11 Added D3429-1 per CHG004 KJ/CP/JLM IPP Rev: I 08-09-29 revF as per dwg DD verified by: EC Est Rev: J 09-03-02 as per DSI9440 rev.a DD verified by: EC IPP rev K 10.08.03 chg ms27039-1-08 for "C" type EC verf: DD IPP Rev: L 12.11.22 now swage per ecn12-679 DD verf: JLM IPP Rev: M 14.04.25 ECN14-520 DD verf: JLM IPP REV: N 15.10.09 ADDED BL DD VERF: JLM IPP REV: O 16.01.22 PAR16-484 DD VERF: JLM	F0000016	0.000	SUSPECT
ALS4-1032-130 Rivnut		FM136579-1	20.000	ST555
CCR264SS3-3 Cherry Rivet		FM137622	298.000	FP001
CR3212-4-03 Cherry Rivet		FM137321-1	49.000	FP001
D2620 Skidtube, 206	DWG REV B IPP D 02.07.26 Change Dwg to rev.B; Updated Location RF	FM137886-0	200.000	CCK003
D2646BL Aft Cap		F163195	2.000	LG002
		F164474	28.000	LG002
D2647 Cap	DWG REV C IPP: G 05.08.22 Hole size revised in Step 5 KJ/JLM IPP Rev: H Changed Inserts 07-02-19 JLM IPP rev I changed inserts 07.06.11 EC IPP REV: J 15.10.09 ADDED BL DD VERF: JLM	F165596	14.000	FP001
D2651-1BL Plug	DWG REV B IPP: A 02.04.15 New Issue NG IPP: B	F162857	1.000	LG001
D2651-3 O-Ring	DWG REV B IPP rev. A 06.02.15 new issue EC	F163996	40.000	LG001
		F161575	21.000	FP001
		F164227	500.000	FP001
		F161517	54.000	FP001
		F161517-3	230.000	FP001
		F164534	260.000	FP001
D2654-5 Web	DWG REV F SHEET 2 IPP Rev: D 99.02.04 Fixed typo, Changed procedure DM	F164376	3.000	LG002
D2680-041 Nut Plate	DWG REV B1 IPP: D 04.10.01 Added Steps 2-4, 7-8 KJ/JLM IPP Rev: E Now on WaterJet 06-10-12 JLM IPP rev F QC5 after c'sink 07.07.05 EC	F141543	6.000	LG001
		F158428	48.000	FP001
		F161578	3.000	FP001
		F164243	20.000	FP001
D3537-1 Wearpad	DWG REV E IPP Rev: A New Issue 07-02-14 JLM IPP REV: B 15.10.16 added automated welding DD verf: JLM	F125911	1.000	ST182
		F165390	89.000	FP001
		F165504	6.000	FP001
D3537-3 Wearpad	DWG REV E IPP Rev: A New Issue 07-02-14 JLM IPP REV: B 15.10.16 AUTOMATED PROCESS DD VERF: JLM	F164273	11.000	FP001
D4720-1 Spacer	DWG REV A IPP REV: A 12.11.20 NEW ISSUE DD VERF: JLM	F161569	116.000	LG001
		F163757	474.000	LG001

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____ Date: _____ Description Wo _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐		Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐		Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐		Engineering ☐ Quality ☐ Other ☐			
		Job No: 166605 Mfg Date: 10/31/17		Change No: _____ Quantity: _____ Operation: _____ Revision: _____ PART NO: _____		MRB (QS1042) Approval _____		Completed By _____		Lead hand / Supervisor Approval Verification _____			
		D206-642-341BL Replacement Skidtube (Fits LH or RH)		QC 1		QC / QA Coordinator Approval _____		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verfic ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐		DART AEROSPACE S004215 1270 Aberdeen Street Hawkesbury, ON K6A 1K7 CANADA TEL: 1 613 632-5200 Email: sales@dartaero.com www.dartaerospace.com			
		OTHER :											

D4956-11 Wearplate Fwd	DWG REV A SHEETS 1,8 IPP REV:A 14.04.22 NEW ISSUE DD VERF:JLM	F159169	4.000	FP002
		F161572	1.000	FP002
		F164279	2.000	FP002
		F164705	1.000	FP002
		F165747	12.000	FP002
D4956-23 Wearplate Center	DWG REV A SHEETS 4,8 IPP REV:A 14.04.22 NEW ISSUE DD VERF:JLM	F164262	14.000	FP002
Fwd		F165561	1.000	FP002
D4956-35 Wearplate Aft	DWG REV A SHEETS 6,8 IPP REV:A 14.04.22 NEW ISSUE DD VERF:JLM	F161536	16.000	FP002
		F164706	1.000	FP002
		F165749	2.000	FP002
MS27039-1-08 Screw		FM128636	13.000	GA
		FM137820-4	20.000	ST281
		FM138209-1	182.000	FP001
MS27039-4-06 Screw		FM126534	5.000	ST279
		FM137951-1	83.000	FP001
MS27039C1-08 Screw		FM137820-8	171.000	FP001
NAS1149C0332R Washer		FM136444-15	366.000	GA
		FM138207-25	908.000	ST334
		FM138409-1	1,400.000	ST260A
NAS1149D0332J Washer		FM136643-15	170.000	GA
		FM138238-15	1,362.000	ST264
NAS1149D0463J Washer		FM137699-15	298.000	GA
		FM137988	600.000	ST263
		FM138084-1	19.000	ST348
		FM138084-15	3.000	CCK017
		FM138230-3	198.000	ST263

Job Routing

Op No	Operation	Qty	Due Date	Standard		Workcenter/Supplier	
				Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time
90	Start up Operation	1 Ea	10/26/17	0.00	0.00	Start up container	
100	DC	1 pcs	10/26/17	0.00	0.00	DC	
110	Skidtubes	1 pcs	10/26/17	0.00	1.58	Skidtubes	
115	QC	1 pcs	10/26/17	0.00	0.00	QC5	
116	QC	1 pcs	10/26/17	0.00	0.00	QC9	
120	HandFinish	1 pcs	10/26/17	0.00	1.17	HandFinish1	
125	QC	1 pcs	10/26/17	0.00	0.00	QC7	
130	Skidtubes	1 pcs	10/26/17	0.00	1.58	Skidtubes	
140	QC	1 pcs	10/26/17	0.00	0.00	QC5	
150	Skidtubes	1 pcs	10/26/17	0.00	1.58	Skidtubes	
180	QC	1 pcs	10/26/17	0.00	0.00	QC5	17-10-30 JK
190	HandFinish	1 pcs	10/26/17	0.00	1.17	HandFinish2	DAS
200	Purchasing	1 pcs	10/26/17	0.00	0.00	Purchasing	38
205	QC	1 pcs	10/26/17	0.00	0.00	QC6	9-89 DAS
210	QC	1 pcs	10/26/17	0.00	0.00	QC14	38
220	HandFinish	1 pcs	10/27/17	0.00	1.17	HandFinish4	DAS 9-89
230	QC	1 pcs	10/27/17	0.00	0.00	QC3	38
240	QC	1 pcs	10/27/17	0.00	0.00	QC5	9-89
250	Packaging	1 pcs	10/27/17	0.00	0.00	Packaging3	9-89
260	QC21-FG	1 Ea	10/27/17	0.00	0.00	QC21	

Part Op 100 - Photocopy bluefile and create labels per PPP D206-642-341 CHG005

Descriptions: 110 - 1-Deburr Fwd edge of tube 2-Scribe "Identify Batch Number" 3-Remove ridge on inside of Fwd edge of tube as per Dwg D2650 4-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required. A/R Aluminum Rod 5-Grind weld flush to cap on top surface only. 6-Cut aft end to length as per dwg D2650 7-Drill pilot holes

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Date :	Step #:	QTY Effective :	MRB (QS1042) Approval
Description Work Order Deviation		Disposition	Completed By
			Lead hand / Supervisor Approval Verification
			QC / QA Coordinator Approval

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

using drill Jig DT8168A (A, & B) and DT8025. 8-Drill holes for wearplates using DT 8028-5. Open to Ø 0.297". 9-Open Aft Cap Hole using #5 Drill Bit 10-Open holes for Tow Ring to Ø0.625" as per Dwg D2650, D2650-5 Drilling Detail 11-Remove inner indexing ridge on aft end of skidtubeas per Dwg D2650 12- Ream holes to finished size as per Dwg D2650, D2650-5 Drilling Detail (without cutting fluid) 13-Deburr.

130 - 1- Bond D2654-5 web in place as per QSI 015 Ensure holes line up Allow 12 Hrs. cure time before cutting Start Date: 17-10-24 Time: 16:55 Finish Date: 17-10-24 Time: _____ A/R Sikaflex-291 138535 Sikaflex expiry date: 2018-04-21

150 - 1- Insert D4720-1 Spacer. Swage to 0.313" X 0.75" DP per QSI 002. Trim and grind flush per QSI 002

200 - ISSUE PO 38260 ***MASK ALL SADDLE AND GROUND HANDLING ATTACHMENT HOLES AS PER PAR16-484*** Make sure Nut Plate Thread is protected using paint screw, and mask GHW studs. PRIME: Start Time: _____ Finish Time: _____ PAINT: DELFLEET BLUE _____ Start Time: _____ Finish Time: _____ CLEAR DELFLEET B _____

220 - 1-Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate. A/R Sikaflex-291 137526 Sikaflex expiry date: 17-11 2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2650. Clean excess adhesive 3-Install MS27039-4-06 Screw 4-Inspect for foreign object per QSI 024 5-Install D2646 Aft Cap and seal with SikaflexClean excess adhesive A/R Sikaflex-291 137526 Sikaflex expiry date: 17-11 6- Install D2680-041 Nut Plate as per Dwg D2650

7-Wing Walk as per Dwg D2650-5 and QSI 005 4.4 Batch: 138535

250 - Identify and pack for shipping as per PPP D206-642-341 Location:FG083

OCT 31 2017

DAS
13
9-86

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	D2620 <u>164474</u>	1	30	0	0
	D2647 <u>8163996</u>	1	41	0	0
	D2654-5 <u>8164376</u>	1	3	0	0
	D4720-1 <u>8163757 (19)</u>	1	590	0	0
150-Skidtubes	ALS4-1032-130	54	120	0	0
220-HandFinish	CCR264SS-3	2	298	0	0
	CR3212-4-03	2	249	0	0
	D2646BL <u>F165596</u>	1	14	0	0
	D2651-1BL <u>F161227</u>	14	521	0	0
	D2651-3 <u>5002491</u>	14	544	0	0
	D2680-041 <u>M164243-119</u>	1	77	0	0
	D3537-1	6	107	0	0
	D3537-3 <u>F164273</u>	1	19	0	0
	D4956-11 <u>F165747</u>	1	20	0	0
	D4956-23 <u>F164262</u>	1	15	0	0
	D4956-35 <u>F161586</u>	1	19	0	0
	MS27039-1-08	2	215	0	0
	MS27039-4-06 <u>Fm137951-1</u>	1	88	0	0
	MS27039C1-08 <u>5001036</u>	54	171	0	0
	NAS1149C0332R	54	2,674	0	0
	NAS1149D0332J <u>5002086</u>	2	1,532	0	0
	NAS1149D0463J <u>Fm137958</u>	1	1,118	0	0

Part Specifications

Specifications could not be found.

Plex 10/12/17 10:12 AM dart.poulin.mario

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

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OCT 12 2017

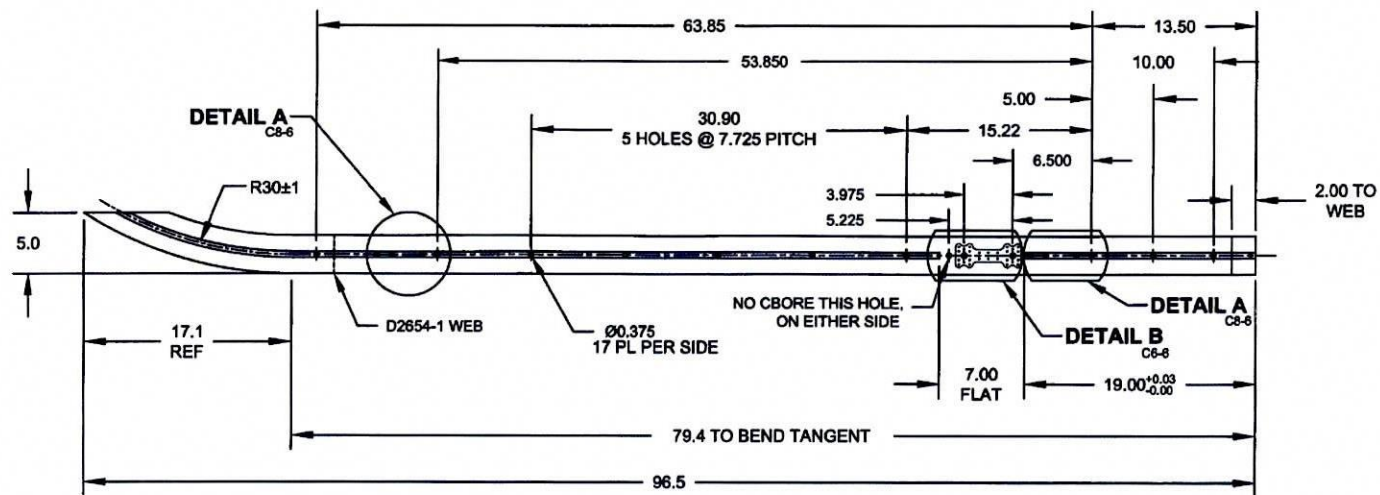
DEO ATTACHED

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08.08.23

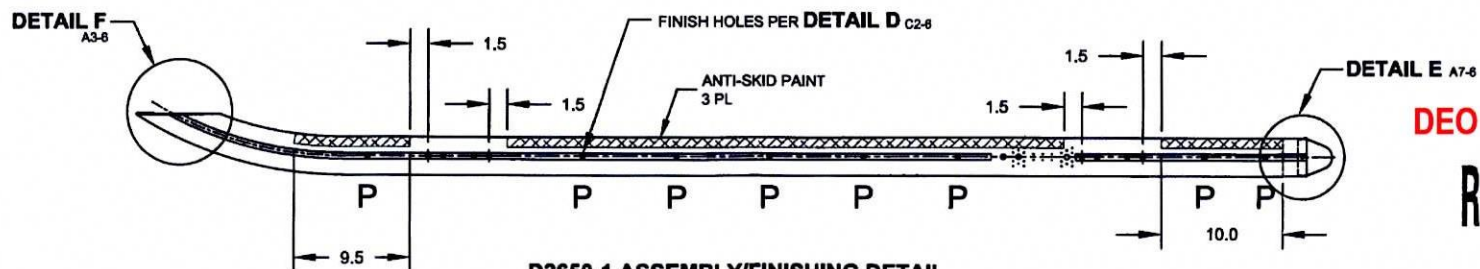
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	REMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	08.03.30
D	REDRAW; INCCRP, DE08138/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



D2650-1 BENDING/DRILLING DETAIL

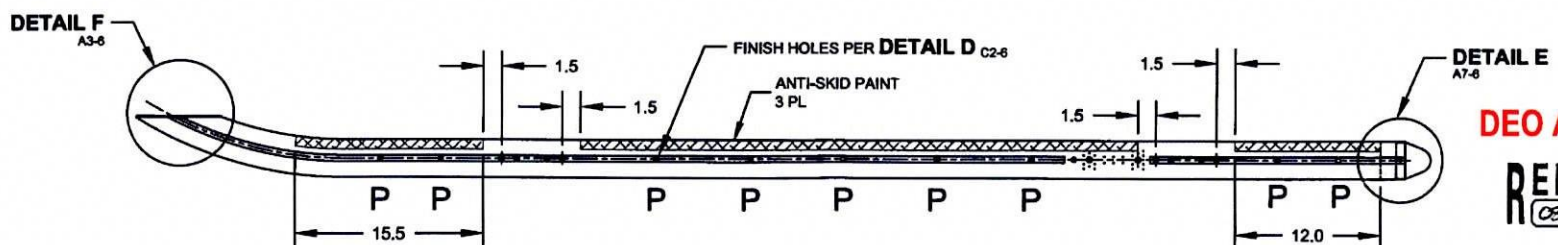
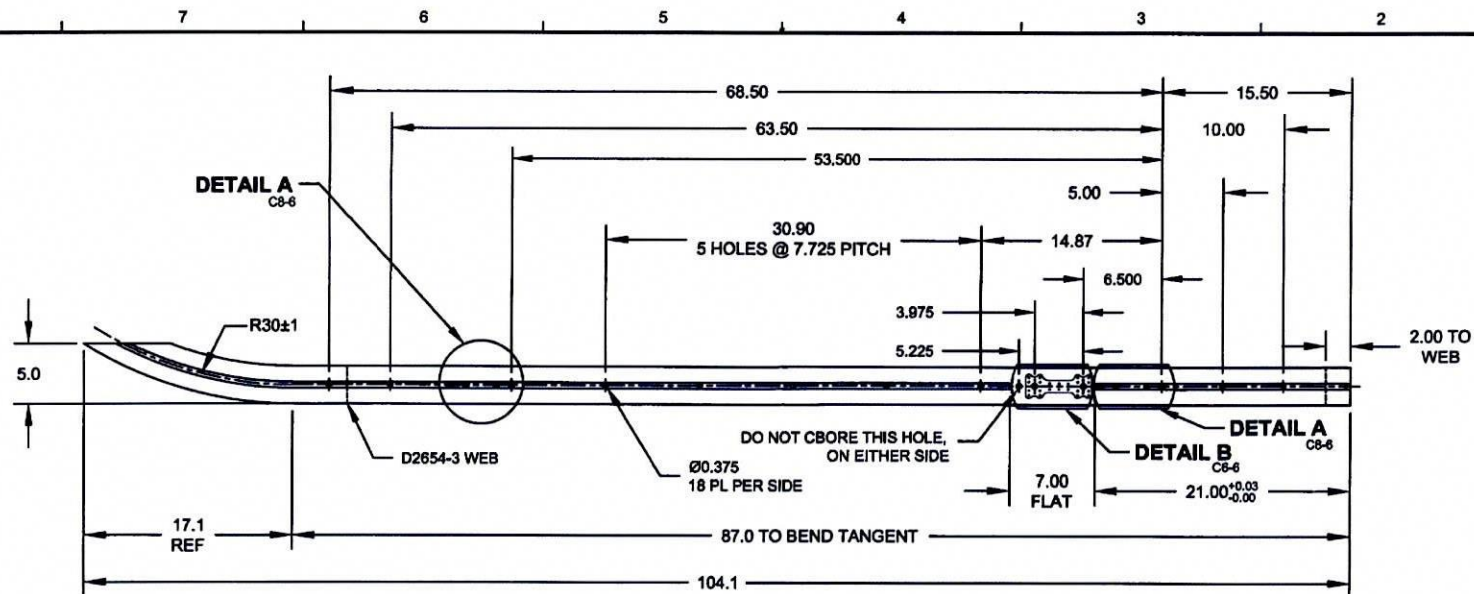


D2650-1 ASSEMBLY/FINISHING DETAIL

DEO ATTACHED

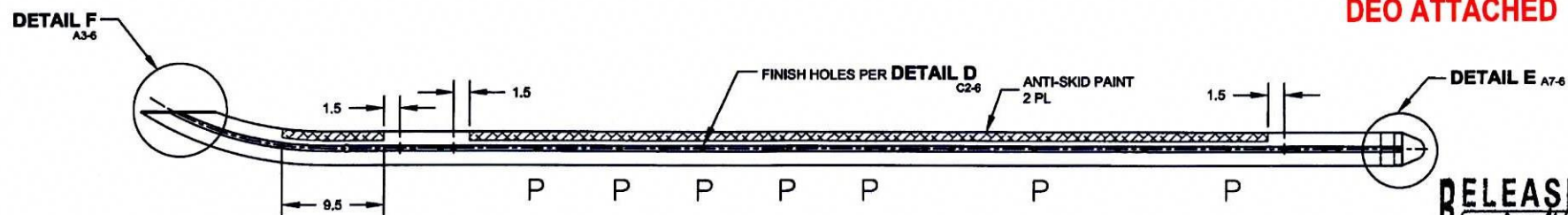
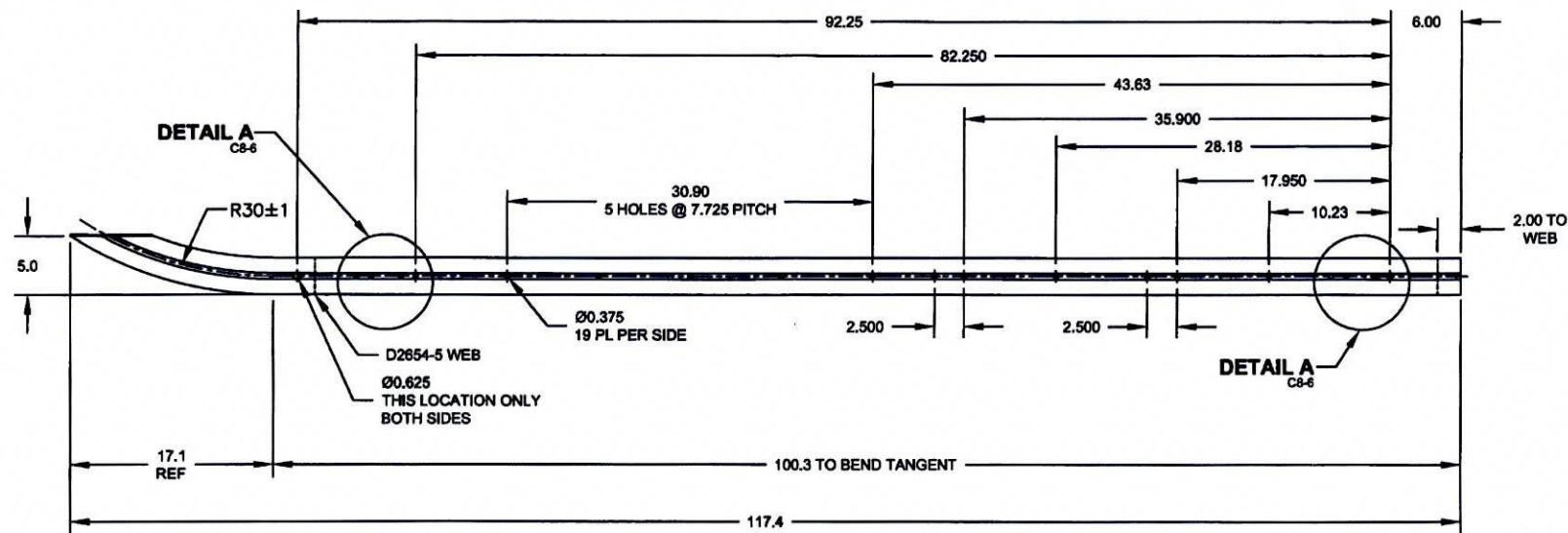
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680922/117

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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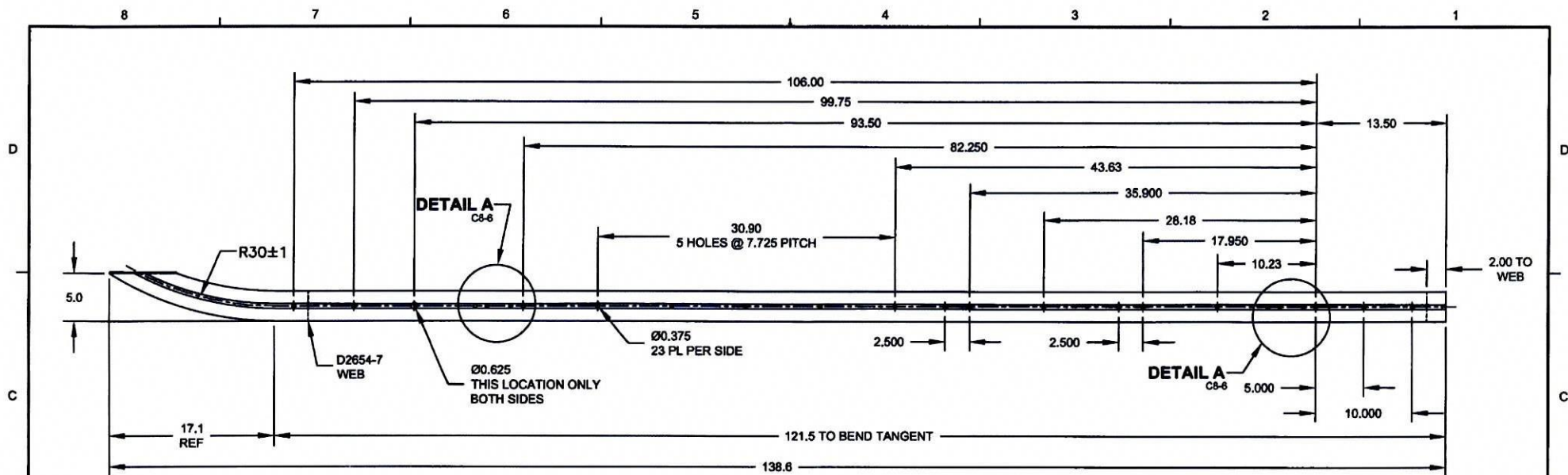
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CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
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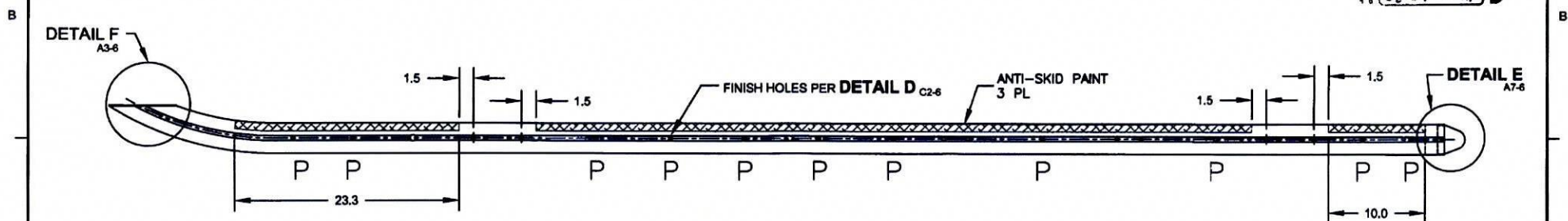
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MFG. APPR.		D2650	SHEET 4 OF 6
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D2650-7 BENDING/DRILL DETAIL

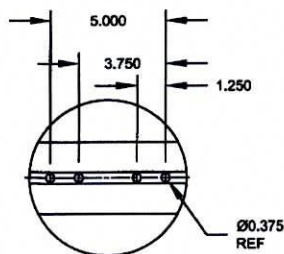
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08 07 22 / 111

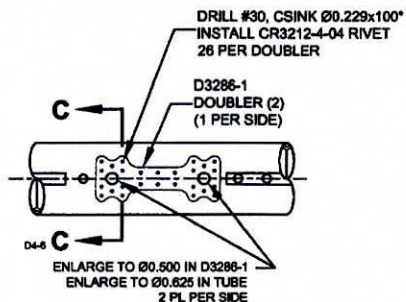


D2650-7 ASSEMBLY/FINISHING DETAIL

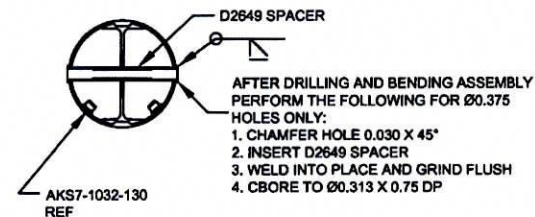
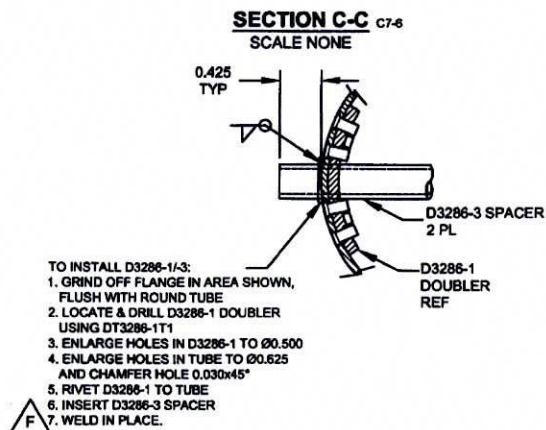
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DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 5 OF 6
APPROVED		TITLE	SCALE
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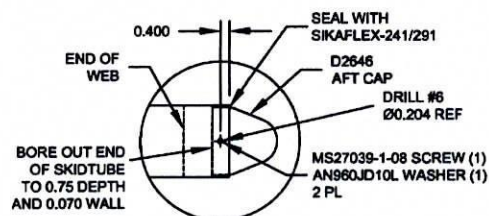
DETAIL A
SCALE 2X
C2-2
D7-2
C2-3
D7-3
C2-4
D7-4
C2-5
D6-5



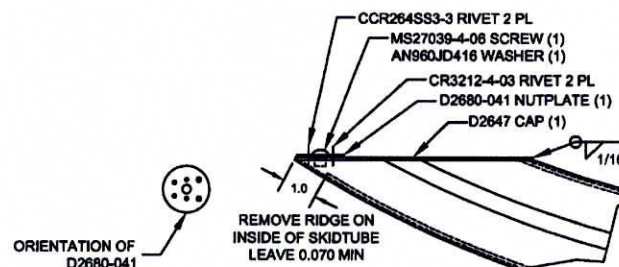
DETAIL B
SCALE 2X
C3-2
C3-3



DETAIL D
FOR Ø0.375 HOLES ONLY
SCALE 3X
B4-2
B4-3
B4-4
B4-5



DETAIL E
SCALE 2X
B2-2
B2-3
B1-4
B1-5



DETAIL F
SCALE NONE
B6-2
B6-3
B6-4
B6-5

- DETAIL F NOTES:**
1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D2647 (TRIM AS NECESSARY)
 4. WELD D2647 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D2680-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

RELEASED
05-09-1997

DEO ATTACHED

DESIGN	DS	DART AEROSPACE USA, INC	
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MFG. APPR.		D2650	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NT
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DRAWING NO. D2650	TITLE 206/407 SKIDTUBE ASSEMBLIES	REV. F	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D2650-F-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>[Signature]</i>	CHECKED A.P.	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 12.10.12	DATE 12.10.22	DATE 12.10.22	DATE 12.10.22		DATE 12.10.22		

PURPOSE:

CHANGE C'BORED WELDED CROSSBOLT SPACERS TO SWAGED SPACERS

CHANGE:

PARTS LIST IS AMENDED AS FOLLOWS:

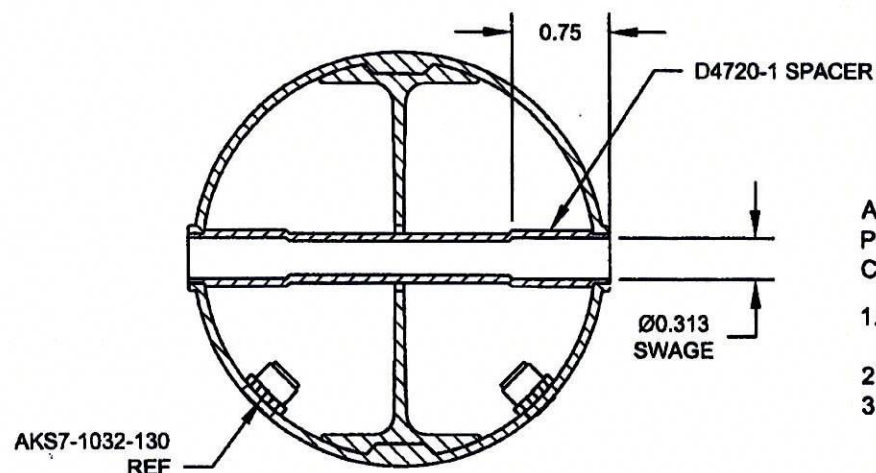
IS:

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
1	1	0	0	D2649	CROSS BOLT SPACER
16	17	19	23	D4720-1	SPACER

WAS:

17	18	19	23	D2649	CROSS BOLT SPACER
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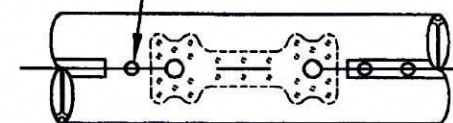
ADD DETAIL G BELOW, WHICH IS THE SAME SECTION VIEW AS DETAIL D OF DWG.
C'BORED HOLES ARE **NOW SWAGED** PER DETAIL G BELOW. FOR THE Ø0.375 HOLE THAT IS NOT C'BORED, WELD PER DETAIL D OF DWG (SEE AMENDED DETAIL B FOR REFERENCE).



DETAIL G

FOR Ø0.375 HOLES ONLY
FOR HOLES THAT ARE CURRENTLY C'BORED ONLY
NOT TO SCALE

D2649 SPACER,
WELD PER DETAIL D OF DWG
BUT DO NOT C'BORE



DETAIL B

AMENDMENT TO DETAIL B
NOT TO SCALE

RELEASED
2012-11-16
[Signature]

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375 HOLES THAT ARE
CURRENTLY C'BORED:

1. INSERT D4720-1 SPACER, 16 PL (-1) OR 17 PL (-3)
OR 19 PL (-5) OR 23 PL (-7)
2. SWAGE TO Ø0.313 X 0.75 DP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002

